REMARKS

Entry of the foregoing, reexamination, and further and favorable reconsideration of the subject application in light of the following remarks, pursuant to and consistent with 37 C.F.R. § 1.112, are respectfully requested.

Summary

As reflected in the Office Action Summary, Claims 91-145 are pending. Claims 96-103, 105-108, 123-130, and 132-135 have been withdrawn from consideration as purportedly drawn to non-elected subject matter. Claims 91-95, 104, 109-122, 131, and 136-145 stand rejected for the reasons addressed below. Acknowledgment has been made to a claim for domestic priority under 35 U.S.C. § 119(e).

Amendments

By the foregoing amendments, the Specification was amended to correct obvious, minor, and typographical errors. Also by the foregoing amendments, independent Claims 91, 93, 118, and 120 were amended to define, with great specificity, what is intended by the recited groups. Support for the defining language is found in the Specification at, *inter alia*, Pages 151-161.

No new matter has been added by any of the foregoing amendments. The foregoing amendments were made in accordance with 37 C.F.R. § 1.121, as revised on November 7, 2000. As required, attached hereto is an Appendix illustrating the changes made to the Specification and Claims.

Improper Markush Rejection

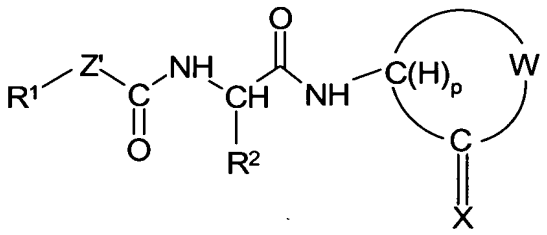
Turning now to the Official Action, Claims 91-95, 104, 109-122, 131, and 136-145 were rejected as purportedly "drawn to an improper Markush group, that is, the claims lack unity of invention." *See Official Action, Pages 2-3.* According to the Examiner, "[t]he ring formed by W, together with -$C(H)_pC(=X)$, and Q are defined in such a way that they keep changing the core of the compound that determines the classification. ... the structural formula IA and IB do not have a significant structural feature that is shared by all of its alternatives which is inventive." *See Official Action, Pages 2-3.* This rejection is respectfully traversed.

Whether a Markush grouping is proper is decided on a case-by-case basis. *In re Harnisch*, 631 F.2d 716, 722 (C.C.P.A. 1980); *In re Jones*, 74 U.S.P.Q. 149, 151 (C.C.P.A. 1947). A Markush grouping is proper where the substances grouped have a community of chemical and physical characteristics which justify their inclusion in a common group, and such inclusion is not repugnant to the principles of scientific classification. *In re Schechter*, 205 F.2d 185, 189 (C.C.P.A. 1953).

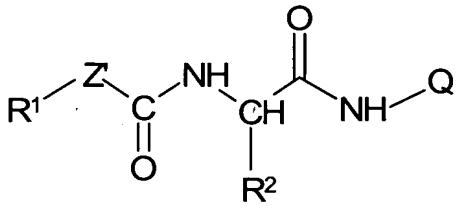
In determining the propriety of a Markush grouping, compounds are to be considered as a whole, and should not be broken down into elements or other compounds. *Jones*, 74 U.S.P.Q. at 151. Moreover, any differences among members of the group must be weighed against similarities. *Id.*

1. **The Compounds Must Be Considered As A Whole**

In the instant case, there are two formulae, IA and IB,[1] which figure predominantly in the Markush rejection:



IA



IB

In rejecting the Claims as purportedly drawn to an improper Markush group, the Examiner states, "[t]he ring formed by W, together with -$C(H)_pC(=X)$, and Q are defined in such a way that they keep changing the core of the compound that determines the classification." *See Official Action, Pages 2-3.* The Examiner's position does not consider the N-acetyl substituted amino acid amides *as a whole*, but instead immediately focuses on the terminal portion of each formula. The Examiner's emphasis on this portion, and not the whole compound, runs contrary to a proper Markush analysis. *See Jones*, 74 U.S.P.Q. at 151.

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[1] For further discussion below, these compounds are referred to as "N-acetyl substituted amino acid amides," wherein "N-acetyl" refers to the R^1-Z'-C(O)- group; "amino acid amide" refers to the -NH-(CH-R^2)C(O)-NH- group; and "substituted" refers to either the cyclic structure or "Q" in formulae IA and IB, respectively.

2. The Compounds Possess A Community Of Chemical And Physical Characteristics Which Justify Their Inclusion In A Common Group

"From the standpoint of patent law, a compound and all of its properties are inseparable; they are one and the same thing. The graphic formulae ... are mere symbols by which compounds can be identified, classified, and compared. But a formula is not a compound and while it may serve in a claim to *identify* what is being patented ... the *thing* that is patented is not the formula but the compound identified by it." *In re Papesch*, 315 F.2d 381, 391 (C.C.P.A. 1963). The N-acetyl substituted amino acid amides identified by graphic formulae IA and IB share a community of chemical characteristics, including the fact that these compounds inhibit β-amyloid peptide release and/or synthesis. Therefore, these compounds are useful in the prevention of Alzheimer's Disease. *See Specification, Page 8, Line 25 to Page 12, Line 19.* In addition, these compounds share a common structural element in that they all contain an N-acetyl amino acid amide group.

When assayed for β-amyloid peptide production inhibition activity in cells using the assay described in Example Bio-1, it was shown that the compounds of formulae IA and IB provided significant inhibition of β-amyloid peptide production, as compared to the control. *See Specification, Pages 735-736.* Over 800 compounds of formulae IA and IB were prepared and assayed.[2] The identity of each of these compounds is listed in: Table C-1 (Compounds 8C 1-511, Pages 418-535 of the Specification); Table C-3 (Compounds 8C 512-601, Pages 539-554 of the Specification); Table C-4 (Compounds 7C 1-220, Pages 558-598 of the Specification, including replacement Page 597, filed July 26, 2001); and Table C-5 (Compounds 7C 221-244, Pages 602-606 of the Specification).

In view of the above, it is evident that the common N-acetyl amino acid amide group, together with the cyclic structure of formula IA or Q of formula IB, provide for a class of compounds possessing β-amyloid inhibition properties. Such compounds can include those having ring structures as set forth in the Tables spanning Pages 105-150 of the Specification. All of these compounds share the ability to inhibit β-amyloid peptide

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[2] For the purpose of this discussion, isolated isomers of R and S were considered as additional compounds.

synthesis. Accordingly, their inclusion in a common group is justified, and such inclusion is not repugnant to the principles of scientific classification. *See Schechter*, 205 F.2d at 189.

3. **Summary**

Based on the foregoing, it is evident that when the N-acetyl substituted amino acid amides of Formula IA and Formula IB are considered as a whole, they have a community of chemical and physical characteristics which justify their inclusion in a common group, and such inclusion is not repugnant to the principles of scientific classification. Accordingly, Applicants respectfully request withdrawal of the improper Markush group rejection against Claims 91-95, 104, 109-122, 131, and 136-145.

35 U.S.C. § 112, Second Paragraph, Rejection

Next, Claims 91-95, 104, 109-122, 131, and 136-145 were rejected under 35 U.S.C. § 112, Second Paragraph, as purportedly indefinite. *See Official Action, Pages 3-5*. According to the Examiner, certain terms, such as "substituted," "cycloalkyl," "heteroaryl," and "heterocyclic" are unclear. Moreover, the Examiner maintains "... and pharmaceutically acceptable salts thereof" is improper Markush language and that the use of "such as" followed by narrow language is inappropriate. This rejection is respectfully traversed.

Not to acquiesce in the Examiner's rejection, but solely to facilitate prosecution, independent Claims 91, 93, 118, and 120 have been amended to define, with great specificity, what is intended by the recited groups. Applicants maintain that Claims 91-95, 104, 109-122, 131, and 136-145 set forth Applicants' invention with reasonable clarity and precision.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 112, Second Paragraph, rejection against Claims 91-95, 104, 109-122, 131, and 136-145.

Reasonable Number of Compounds

The Examiner maintains that Claim 145 lists 68 pages of compounds and that this number is not reasonable. *See Official Action, Page 5.* The Examiner cites to *37 C.F.R.* § 1.141, which pertains to "Different inventions in one national application." Applicants maintain that the instant application contains *one* invention. Accordingly, reliance on Rule 141 is misplaced.

CONCLUSION

In summary, Applicants maintain that the outstanding rejections have been either obviated or rendered moot. From the foregoing, further and favorable action in the form of a Notice of Allowance is respectfully requested and such action is earnestly solicited.

In the event that there are any questions relating to this Response, or the application in general, it would be greatly appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,
BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: _____

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Date: October 7, 2002

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Paragraph Bridging Pages 156-157

--Unless otherwise constrained by the definition for the aryl substituent, such aryl groups can optionally be substituted with from [1 to 5 substituents selected from the group consisting of acyloxy,] 1 to 5, and preferably 1 to 3, substituents selected from the group consisting of hydroxy, acyl, acyloxy, alkyl, alkoxy, alkenyl, alkynyl, substituted alkyl, substituted alkoxy, substituted alkenyl, substituted alkynyl, amino, aminoacyl, acylamino, alkaryl, aryl, aryloxy, azido, carboxyl, carboxylalkyl, cyano, halo, nitro, heteroaryl, heterocyclic, aminoacyloxy, oxyacylamino, thioalkoxy, substituted thioalkoxy, thioaryloxy, thioheteroaryloxy, -SO-alkyl, -SO-substituted alkyl, -SO-aryl, -SO-heteroaryl, $-SO_2$-alkyl, $-SO_2$-substituted alkyl, $-SO_2$-aryl, $-SO_2$-heteroaryl, trihalomethyl, mono- and di-alkylamino, mono- and di-(substituted alkyl)amino, mono- and di-arylamino, mono- and di-heteroarylamino, mono- and di-heterocyclic amino, and unsymmetric di-substituted amines having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic, and the like. Preferred substituents include alkyl, alkoxy, halo, cyano, nitro, trihalomethyl, and thioalkoxy.--

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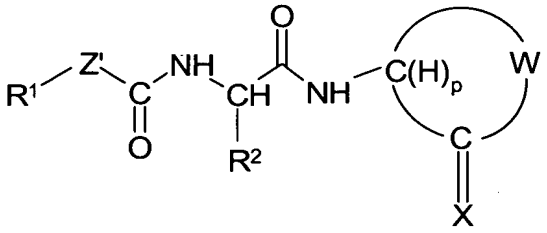
91. A pharmaceutical composition comprising a pharmaceutically inert carrier and a pharmaceutically effective amount of formula IA:



IA

wherein R^1 is selected from the group consisting of: [alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, substituted alkyl, substituted alkenyl, substituted alkynyl, substituted cycloalkyl, substituted cycloalkenyl, optionally substituted aryl, optionally substituted heteroaryl and optionally substituted heterocyclic]

A) alkyl of from 1 to 10 carbon atoms;

B) alkenyl of from 2 to 10 carbon atoms and 1-2 sites of alkenyl unsaturation;

C) alkynyl of from 2 to 10 carbon atoms and from 1-2 sites of alkynyl unsaturation;

D) cycloalkyl of from 3 to 12 carbon atoms;

E) cycloalkenyl of from 4 to 8 carbon atoms;

F) substituted alkyl of from 1 to 10 carbon atoms, having from 1 to 3 substituents selected from:

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1) alkoxy of from 1 to 10 carbon atoms;

2) substituted alkoxy of the formula substituted alkyl-O- where substituted alkyl is as defined in F herein;

3) cycloalkyl which is as defined in D herein;

4) substituted cycloalkyl is defined in I herein;

5) cycloalkenyl which is defined in E herein;

6) substituted cycloalkenyl which is defined in J herein;

7) acyl selected from alkyl-C(O)-, substituted alkyl-C(O)-, cycloalkyl-C(O)-, substituted cycloalkyl-C(O)-, aryl-C(O)-, heteroaryl-C(O)- and heterocyclic-C(O)- wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein cycloalkyl is defined in D herein; wherein substituted cycloalkyl is defined in I herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

8) acylamino having the formula -C(O)NRR where each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, or heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein;

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wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

9) acyloxy selected from alkyl-C(O)O-, substituted alkyl-C(O)O-, cycloalkyl-C(O)O-, aryl-C(O)O-, heteroaryl-C(O)O-, and heterocyclic-C(O)O- wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein cycloalkyl is defined in D herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

10) amino;

11) aminoacyl having the formula -NRC(O)R wherein each R is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, and heterocyclic; wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

12) aminoacyloxy having the formula -NRC(O)OR wherein each R is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, and heterocyclic; wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein;

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wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

13) cyano;

14) halogen;

15) hydroxyl;

16) carboxyl;

17) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

18) thiol;

19) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

20) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

21) aryl having from 6 to 14 ring carbon atoms, optionally substituted with from 1 to 5 substituents selected from the group consisting of:

a) hydroxy;

b) acyl as defined in F7 herein;

c) acyloxy as defined in F9 herein;

d) alkyl as defined in A herein;

e) substituted alkyl as defined in F herein;

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f) alkoxy as defined in F1 herein;

g) substituted alkoxy as defined in F2 herein;

h) alkenyl as defined in B herein;

i) substituted alkenyl as defined in G herein;

j) alkynyl as defined in C herein;

k) substituted alkynyl as defined in H herein;

l) amino;

m) aminoacyl as defined in F11 herein;

n) acylamino as defined in F8 herein;

o) alkaryl of the formula -alkylene-aryl having 8 carbon atoms in the alkylene moiety and aryl is defined in F21 herein;

p) aryl as defined in F21 herein;

q) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

r) azido;

s) carboxyl;

t) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

u) cyano;

v) halo selected from fluoro, chloro, bromo and iodo;

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w) nitro;

x) heteroaryl as defined in F22 herein;

y) heterocyclic as defined in F23 herein;

z) aminoacyloxy as defined in F12 herein;

aa) oxyacylamino having the formula -OC(O)NRR where each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, or heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

bb) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

cc) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

dd) thioaryloxy having the formula -S-aryl wherein aryl is defined in F21 herein;

ee) thioheteroaryloxy having the formula -S-heteroaryl wherein heteroaryl is defined F22 herein;

ff) -SO-alkyl wherein alkyl is defined in A herein;

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gg) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

hh) -SO-aryl wherein aryl is defined in F21 herein;

ii) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

jj) $-SO_2$-alkyl wherein alkyl is defined in A herein;

kk) $-SO_2$-substituted alkyl wherein substituted alkyl is defined in F herein;

ll) $-SO_2$-aryl wherein aryl is defined in F21 herein;

mm) $-SO_2$-heteroaryl wherein heteroaryl is defined in F22 herein;

nn) trihalomethyl wherein halo is defined in I20 herein;

oo) mono- and dialkylamino wherein alkyl is defined in A herein;

pp) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

qq) mono- and di-arylamino wherein aryl is defined in F21 herein;

rr) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

ss) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein;

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tt) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

22) heteroaryl of from 1 to 15 ring carbon atoms and 1 to 4 ring heteroatoms selected from oxygen, nitrogen and sulfur, optionally substituted with from 1 to 5 substituents selected from:

a) alkyl as defined in A herein;

b) substituted alkyl as defined in F herein;

c) alkoxy as defined in F1 herein;

d) substituted alkoxy as defined in F2 herein;

e) aryl as defined in F21 herein;

f) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

g) halo selected from fluoro, chloro, bromo and iodo;

h) nitro;

i) heteroaryl as defined in F22 herein;

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j) thiol;

k) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

l) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

m) thioaryloxy having the formula -S-aryl wherein aryl is defined in F21 herein; and

n) trihalomethyl wherein halo is defined in I20 herein;

23) heterocyclic of from 1 to 15 ring carbon atoms and from 1 to 4 ring atoms selected from nitrogen, sulfur and oxygen, optionally substituted with from 1 to 5 substituents selected from:

a) alkyl as defined in A herein;

b) substituted alkyl as defined in F herein;

c) alkoxy as defined in F1 herein;

d) substituted alkoxy as defined in F2 herein;

e) aryl as defined in F21 herein;

f) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

g) halo selected from fluoro, chloro, bromo and iodo;

h) nitro;

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i) heteroaryl as defined in F22 herein;

j) thiol;

k) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

l) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

m) thioaryloxy having the formula -S-aryl wherein aryl is defined in F21 herein; and

n) trihalomethyl wherein halo is selected from fluoro, chloro, bromo and iodo;

24) aryloxy of the formula -O-aryl wherein aryl is defined in F21 herein;

25) heteroaryloxy of the formula -O-heteroaryl wherein heteroaryl is defined in F22 herein;

26) hydroxyamino;

27) alkoxyamino wherein alkoxy is defined in F1 herein;

28) nitro;

29) -SO-alkyl wherein alkyl is defined in A herein;

30) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

31) -SO-aryl wherein aryl is defined in F21 herein;

32) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

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33) -SO_2-alkyl wherein alkyl is defined in A herein;

34) -SO_2-substituted alkyl wherein substituted alkyl is defined in F herein;

35) -SO_2-aryl wherein aryl is defined in F21 herein;

36) -SO_2-heteroaryl wherein heteroaryl is defined in F22 herein;

37) mono- and dialkylamino wherein alkyl is defined in A herein;

38) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

39) mono- and di-arylamino wherein aryl is defined in F21 herein;

40) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

41) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein;

42) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

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G) substituted alkenyl having from 1 to 3 substituents selected from the group consisting of:

1) alkoxy as defined in F1 herein;

2) substituted alkoxy as defined in F2 herein;

3) acyl as defined in F7 herein;

4) acylamino as defined in F8 herein;

5) acyloxy as defined in F9 herein;

6) amino;

7) aminoacyl as defined in F11 herein;

8) aminoacyloxy as defined in F12 herein;

9) cyano;

10) halogen selected from fluoro, chloro, bromo and iodo;

11) hydroxyl;

12) carboxyl;

13) carboxylalkyl as defined in F17 herein;

14) thiol;

15) thioalkoxy as defined in F19 herein;

16) substituted thioalkoxy as defined in F20 herein;

17) aryl as defined in F21 herein;

18) heteroaryl as defined in F22 herein;

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19) heterocyclic as defined in F23 herein;

20) nitro;

21) -SO-alkyl wherein alkyl is defined in A herein;

22) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

23) -SO-aryl wherein aryl is defined in F21 herein;

24) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

25) -SO_2-alkyl wherein alkyl is defined in A herein;

26) -SO_2-substituted alkyl wherein substituted alkyl is defined in F herein;

27) -SO_2-aryl wherein aryl is defined in F21 herein;

28) -SO_2-heteroaryl wherein heteroaryl is defined in F22 herein;

29) mono- and dialkylamino wherein alkyl is defined in A herein;

30) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

31) mono- and di-arylamino wherein aryl is defined in F21 herein;

32) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

33) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein; and

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34) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

H) substituted alkynyl of from 1 to 3 substituents selected from:

1) alkoxy as defined in F1 herein;

2) substituted alkoxy as defined in F2 herein;

3) acyl as defined in F7 herein;

4) acylamino as defined in F8 herein;

5) acyloxy as defined in F9 herein;

6) amino;

7) aminoacyl as defined in F11 herein;

8) aminoacyloxy as defined in F12 herein;

9) cyano;

10) halogen selected from fluoro, chloro, bromo and iodo;

11) hydroxyl;

12) carboxyl;

13) carboxylalkyl as defined in F17 herein;

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14) thiol;

15) thioalkoxy as defined in F19 herein;

16) substituted thioalkoxy as defined in F20 herein;

17) aryl as defined in F21 herein;

18) heteroaryl as defined in F22 herein;

19) heterocyclic as defined in F23 herein;

20) nitro;

21) -SO-alkyl wherein alkyl is defined in A herein;

22) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

23) -SO-aryl wherein aryl is defined in F21 herein;

24) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

25) $-SO_2$-alkyl wherein alkyl is defined in A herein;

26) $-SO_2$-substituted alkyl wherein substituted alkyl is defined in F herein;

27) $-SO_2$-aryl wherein aryl is defined in F21 herein;

28) $-SO_2$-heteroaryl wherein heteroaryl is defined in F22 herein;

29) mono- and dialkylamino wherein alkyl is defined in A herein;

30) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

31) mono- and di-arylamino wherein aryl is defined in F21 herein;

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32) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

33) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein; and

34) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

I) substituted cycloalkyl having 3 to 12 carbon atoms and from 1 to 5 substituents selected from the group consisting of:

1) hydroxy;

2) acyl as defined in F7 herein;

3) acyloxy as defined in F9 herein;

4) alkyl as defined in A herein;

5) substituted alkyl as defined in F herein;

6) alkoxy as defined in F1 herein;

7) substituted alkoxy as defined in F2 herein;

8) alkenyl as defined in B herein;

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9) substituted alkenyl as defined in G herein;

10) alkynyl as defined in C herein;

11) substituted alkynyl as defined in H herein;

12) amino;

13) aminoacyl as defined in F11 herein;

14) alkaryl of the formula -alkylene-aryl having 8 carbon atoms in the alkylene moiety and aryl is defined in F21 herein;

15) aryl as defined in F21 herein;

16) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

17) carboxyl;

18) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

19) cyano;

20) halo selected from fluoro, chloro, bromo and iodo;

21) nitro;

22) heteroaryl as defined in F22 herein;

23) thioalkoxy as defined in F19 herein;

24) substituted thioalkoxy as defined in F20 herein; and

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25) trihalomethyl wherein halo is selected from fluoro, chloro, bromo and iodo;

J) substituted cycloalkenyl having from 4 to 8 carbon atoms and from 1 to 5 substituents selected from the group consisting of:

1) hydroxy;

2) acyl as defined in F7 herein;

3) acyloxy as defined in F9 herein;

4) alkyl as defined in A herein;

5) substituted alkyl as defined in F herein;

6) alkoxy as defined in F1 herein;

7) substituted alkoxy as defined in F2 herein;

8) alkenyl as defined in B herein;

9) substituted alkenyl as defined in G herein;

10) alkynyl as defined in C herein;

11) substituted alkynyl as defined in H herein;

12) amino;

13) aminoacyl as defined in F11 herein;

14) alkaryl of the formula -alkylene-aryl having 8 carbon atoms in the alkylene moiety and aryl is defined in F21 herein;

15) aryl as defined in F21 herein;

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16) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

17) carboxyl;

18) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

19) cyano;

20) halo selected from fluoro, chloro, bromo and iodo;

21) nitro;

22) heteroaryl as defined in F22 herein;

23) thioalkoxy as defined in F19 herein;

24) substituted thioalkoxy as defined in F20 herein; and

25) trihalomethyl wherein halo is selected from fluoro, chloro, bromo and iodo;

K) aryl as defined in F21 herein;

L) heteroaryl as defined in F22 herein; and

M) heterocyclic as defined in F23 herein;

R^2 is independently selected from the group consisting of: [alkyl, alkenyl, alkynyl, substituted alkyl, substituted alkenyl, substituted alkynyl, cycloalkyl, optionally substituted

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aryl, optionally substituted heteroaryl, optionally substituted heterocyclic, 2-aminopryrid-6-yl, 2-methylcyclopentyl, cyclohex-2-enyl and $-(CH_2)_4NHC(O)OC(CH_3)_3$;]

N) alkyl as defined in A herein;

O) alkenyl as defined in B herein;

P) alkynyl as defined in C herein;

Q) substituted alkyl as defined in F herein;

R) substituted alkenyl as defined in G herein;

S) substituted alkynyl as defined in H herein;

T) cycloalkyl as defined in D herein;

U) aryl as defined in F21 herein;

V) heteroaryl as defined in F22 herein;

W) heterocyclic as defined in F23 herein;

W^1) 2-aminopyrid-6-yl;

W^2) 2-methylcyclopentyl;

W^3) cyclohex-2-enyl; and

W^4) $-(CH_2)_4NHC(O)OC(CH_3)_3$;

Z' is represented by the formula -CX'X''-, -T-CH_2- or -T-C(O)-, where T is selected from the group consisting of oxygen, sulfur, $-NR^5$, where R^5 is hydrogen, acyl as defined in F7 herein, alkyl as defined in A herein, aryl as defined in F21 herein, or

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heteroaryl as defined in F22 herein [alkyl, optionally substituted aryl or optionally substituted heteroaryl group]; X′ is hydrogen, hydroxy or fluoro; X″ is hydrogen, hydroxy or fluoro, or X′ and X″ together form an oxo group;

W, together with $-C(H)_pC(=X)-$, forms a cycloalkyl [, cycloalkenyl, optionally substituted heterocyclic, substituted cycloalkyl, or substituted cycloalkenyl group wherein each of said cycloalkyl, cycloalkenyl, optionally substituted heterocyclic, substituted cycloalkyl or substituted cycloalkenyl group is optionally fused to form a bi- or multi-fused ring system with one or more ring structures selected from the group consisting of cycloalkyl, cycloalkenyl, heterocyclic, aryl and heteroaryl group which, in turn, each of such ring structures is optionally substituted with 1 to 4 substituents selected from the group consisting of hydroxyl, halo, alkoxy, substituted alkoxy, thioalkoxy, substituted thioalkoxy, nitro, cyano, carboxyl, carboxyl esters, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, amino, N-alkylamino, N,N-dialkylamino, N-substituted alkylamino, N-alkyl N-substituted alkylamino, N,N-disubstituted alkylamino, $-NHC(O)R^4$, $-NHSO_2R^4$, $-C(O)NH_2$, $-C(O)NHR^4$, $-C(O)NR^4R^4$, $-S(O)R^4$, $-S(O)_2R^4$, $-S(O)_2NHR^4$ and $-S(O)_2NR^4R^4$ where each R^4 is independently selected from the group consisting of alkyl, substituted alkyl, or optionally substituted aryl;] as defined in D herein, cycloalkenyl as defined in E herein, heterocyclic as defined in F23 herein, cycloalkyl as defined in I herein, substituted cycloalkenyl as defined in J herein, wherein each of said cycloalkyl, cycloalkenyl, heterocyclic, substituted cycloalkyl or substituted cycloalkenyl

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group is optionally fused to form a bi- or multi-fused ring system with one or more ring structures selected from the group consisting of cycloalkyl as defined in D herein, cycloalkenyl as defined in E herein, heterocyclic as defined in F23 herein, aryl as defined in F21 herein, and heteroaryl as defined in F22 herein, where, in turn, each of said ring structures is optionally substituted with 1 to 4 substituents selected from the group consisting of hydroxyl, halo, alkoxy as defined in F1 herein, substituted alkoxy as defined in F2 herein, thioalkoxy as defined in F19 herein, substituted thioalkoxy as defined in F20 herein, nitro, cyano, carboxyl, carboxyl esters, alkyl as defined in A herein, substituted alkyl as defined in F herein, alkenyl as defined in B herein, substituted alkenyl as defined in G herein, alkynyl as defined in C herein, substituted alkynyl as defined in H herein, amino, N-alkylamino wherein alkyl is defined in A herein, N,N-dialkylamino wherein alkyl is defined in A herein, N-substituted alkylamino wherein substituted alkyl is defined in F herein, N-alkyl N-substituted alkylamino wherein alkyl is defined in A herein and wherein substituted alkyl is defined in F herein, N-N-disubstituted alkylamino wherein substituted alkyl is defined in F herein, $-NHC(O)R^4$, $-NHSO_2R^4$, $-C(O)NH_2$, $-C(O)NHR^4$, $-C(O)NR^4R^4$, $-S(O)R^4$, $-S(O)_2R^4$, $-S(O)_2NHR^4$, and $-S(O)_2NR^4R^4$, where each R^4 is independently selected from the group consisting of alkyl as defined in A herein, substituted alkyl as defined in F herein, or substituted aryl as defined in F21 herein;

X is selected from the group consisting of =O; =S; -H, -OH; H,-SH; and H,H;

p is an integer equal to 0 or 1 such that when *p* is zero, the ring defined by W and

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-$C(H)_pC(=X)$- is unsaturated at the carbon atom of ring attachment to NH, and when *p* is one, the ring is saturated at the carbon atom of ring attachment to NH;

[and] or pharmaceutically acceptable salts thereof;

with the following provisos:

AAA. when R^1 is 3,5-difluorophenyl, R^2 is -CH_3, Z′ is -CH_2-, and *p* is 1, then W, together with >CH and >C=X, does not form a 2-(S)-indanol group;

BBB. when R^1 is phenyl, R^2 is -CH_3, Z′ is -CH_2-, *p* is 1, then W, together with >CH and >C=X, does not form a trans-2-hydroxy-cyclohex-1-yl group;

CCC. when R^1 is cyclopropyl, R^2 is -CH_3, Z′ is -CH_2-, and *p* is 1, then W, together with >CH and >C=X, does not form an N-methylcaprolactam group;

DDD. when R^1 is 4-chlorobenzoyl-CH_2-, R^2 is -CH_3, Z′ is -CH_2-, and *p* is 1, then W, together with >CH and >C=X, does not form an 2,3-dihydro-1-methyl-5-phenyl-1H-1,4-benzodiazepin-2-one;

EEE. when R^1 is 2-phenylphenyl, R^2 is -CH_3, Z′ is -CH_2-, and *p* is 1, then W, together with >CH and >C=X, does not form an 7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one;

FFF. when R^1 is $CH_3OC(O)CH_2$-, R^2 is -CH_3, Z′ is -CH_2-, and *p* is 1, then W, together with >CH and >C=X, does not form an 2,3-dihydro-1-(*t*-butylC(O)CH_2-)-5-(2-pyridyl)-1H-1,4-benzodiazepin-2-one;

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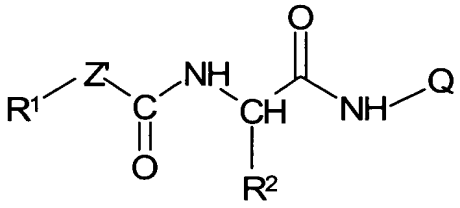
GGG. when R^1 is 4-ethoxyphenyl, 2,4,6-trimethylphenyl, 4-phenylphenyl, $CH_3OC(O)CH_2$-, 4-$HOCH_2$-phenyl, 2,4,6-trifluorophenyl, 2-trifluoromethyl-4-fluorophenyl, or CH_3S-, R^2 is $-CH_3$, Z′ is $-CH_2$-, and *p* is 1, then W, together with >CH and >C=X, does not form a 2,3-dihydro-1-(N,N-diethylamino-CH_2CH_2-)-5-(2-pyridyl)-1H-1,4-benzodiazepin-2-one;

HHH. when R^1 is 2,6-difluorophenyl, R^2 is $-CH_3$, Z′ is -CH(OH)-, and *p* is 1, then W, together with >CH and >C=X, does not form a 2,3-dihydro-1-(N,N-diethylamino-CH_2CH_2-)-5-(2-pyridyl)-1H-1,4-benzodiazepin-2-one;

III. when the ring defined by W and $-C(H)_pC(=X)-$ forms a cycloalkyl, then it does not form a cycloalkyl of from 3 to 8 carbon atoms optionally substituted with 1 to 3 alkyl groups.

93. (Amended) A pharmaceutical composition comprising a pharmaceutically inert carrier and a pharmaceutically effective amount of formula IB:



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wherein R^1 is selected from the group consisting of : [alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, substituted alkyl, substituted alkenyl, substituted alkynyl, substituted cycloalkyl, substituted cycloalkenyl, optionally substituted aryl, optionally substituted heteroaryl and optionally substituted heterocyclic;]

A) alkyl of from 1 to 10 carbon atoms;

B) alkenyl of from 2 to 10 carbon atoms and 1-2 sites of alkenyl unsaturation;

C) alkynyl of from 2 to 10 carbon atoms and from 1-2 sites of alkynyl unsaturation;

D) cycloalkyl of from 3 to 12 carbon atoms;

E) cycloalkenyl of from 4 to 8 carbon atoms;

F) substituted alkyl of from 1 to 10 carbon atoms, having from 1 to 3 substituents selected from:

1) alkoxy of from 1 to 10 carbon atoms;

2) substituted alkoxy of the formula substituted alkyl-O- where substituted alkyl is as defined in F herein;

3) cycloalkyl which is as defined in D herein;

4) substituted cycloalkyl is defined in I herein;

5) cycloalkenyl which is defined in E herein;

6) substituted cycloalkenyl which is defined in J herein;

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7) acyl selected from alkyl-C(O)-, substituted alkyl-C(O)-, cycloalkyl-C(O)-, substituted cycloalkyl-C(O)-, aryl-C(O)-, heteroaryl-C(O)- and heterocyclic-C(O)- wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein cycloalkyl is defined in D herein; wherein substituted cycloalkyl is defined in I herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

8) acylamino having the formula -C(O)NRR where each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, or heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

9) acyloxy selected from alkyl-C(O)O-, substituted alkyl-C(O)O-, cycloalkyl-C(O)O-, aryl-C(O)O-, heteroaryl-C(O)O-, and heterocyclic-C(O)O- wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein cycloalkyl is defined in D herein; wherein aryl is defined in F21 herein; wherein

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heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

10) amino;

11) aminoacyl having the formula -NRC(O)R wherein each R is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, and heterocyclic; wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

12) aminoacyloxy having the formula -NRC(O)OR wherein each R is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, and heterocyclic; wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

13) cyano;

14) halogen;

15) hydroxyl;

16) carboxyl;

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17) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

18) thiol;

19) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

20) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

21) aryl having from 6 to 14 ring carbon atoms, optionally substituted with from 1 to 5 substituents selected from the group consisting of:

a) hydroxy;

b) acyl as defined in F7 herein;

c) acyloxy as defined in F9 herein;

d) alkyl as defined in A herein;

e) substituted alkyl as defined in F herein;

f) alkoxy as defined in F1 herein;

g) substituted alkoxy as defined in F2 herein;

h) alkenyl as defined in B herein;

i) substituted alkenyl as defined in G herein;

j) alkynyl as defined in C herein;

k) substituted alkynyl as defined in H herein;

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l) amino;

m) aminoacyl as defined in F11 herein;

n) acylamino as defined in F8 herein;

o) alkaryl of the formula -alkylene-aryl having 8 carbon atoms in the alkylene moiety and aryl is defined in F21 herein;

p) aryl as defined in F21 herein;

q) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

r) azido;

s) carboxyl;

t) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

u) cyano;

v) halo selected from fluoro, chloro, bromo and iodo;

w) nitro;

x) heteroaryl as defined in F22 herein;

y) heterocyclic as defined in F23 herein;

z) aminoacyloxy as defined in F12 herein;

aa) oxyacylamino having the formula -OC(O)NRR where each R is independently hydrogen, alkyl, substituted alkyl, aryl,

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heteroaryl, or heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

bb) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

cc) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

dd) thioaryloxy having the formula -S-aryl wherein aryl is defined in F21 herein;

ee) thioheteroaryloxy having the formula -S-heteroaryl wherein heteroaryl is defined F22 herein;

ff) -SO-alkyl wherein alkyl is defined in A herein;

gg) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

hh) -SO-aryl wherein aryl is defined in F21 herein;

ii) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

jj) $-SO_2$-alkyl wherein alkyl is defined in A herein;

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kk) -SO_2-substituted alkyl wherein substituted alkyl is defined in F herein;

ll) -SO_2-aryl wherein aryl is defined in F21 herein;

mm) -SO_2-heteroaryl wherein heteroaryl is defined in F22 herein;

nn) trihalomethyl wherein halo is defined in I20 herein;

oo) mono- and dialkylamino wherein alkyl is defined in A herein;

pp) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

qq) mono- and di-arylamino wherein aryl is defined in F21 herein;

rr) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

ss) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein;

tt) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is

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defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

22) heteroaryl of from 1 to 15 ring carbon atoms and 1 to 4 ring heteroatoms selected from oxygen, nitrogen and sulfur, optionally substituted with from 1 to 5 substituents selected from:

a) alkyl as defined in A herein;

b) substituted alkyl as defined in F herein;

c) alkoxy as defined in F1 herein;

d) substituted alkoxy as defined in F2 herein;

e) aryl as defined in F21 herein;

f) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

g) halo selected from fluoro, chloro, bromo and iodo;

h) nitro;

i) heteroaryl as defined in F22 herein;

j) thiol;

k) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

l) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

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m) thioaryloxy having the formula -S-aryl wherein aryl is defined in F21 herein; and

n) trihalomethyl wherein halo is defined in I20 herein;

23) heterocyclic of from 1 to 15 ring carbon atoms and from 1 to 4 ring atoms selected from nitrogen, sulfur and oxygen, optionally substituted with from 1 to 5 substituents selected from:

a) alkyl as defined in A herein;

b) substituted alkyl as defined in F herein;

c) alkoxy as defined in F1 herein;

d) substituted alkoxy as defined in F2 herein;

e) aryl as defined in F21 herein;

f) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

g) halo selected from fluoro, chloro, bromo and iodo;

h) nitro;

i) heteroaryl as defined in F22 herein;

j) thiol;

k) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

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l) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

m) thioaryloxy having the formula -S-aryl wherein aryl is defined in F21 herein; and

n) trihalomethyl wherein halo is selected from fluoro, chloro, bromo and iodo;

24) aryloxy of the formula -O-aryl wherein aryl is defined in F21 herein;

25) heteroaryloxy of the formula -O-heteroaryl wherein heteroaryl is defined in F22 herein;

26) hydroxyamino;

27) alkoxyamino wherein alkoxy is defined in F1 herein;

28) nitro;

29) -SO-alkyl wherein alkyl is defined in A herein;

30) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

31) -SO-aryl wherein aryl is defined in F21 herein;

32) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

33) $-SO_2$-alkyl wherein alkyl is defined in A herein;

34) $-SO_2$-substituted alkyl wherein substituted alkyl is defined in F herein;

35) $-SO_2$-aryl wherein aryl is defined in F21 herein;

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36) -SO_2-heteroaryl wherein heteroaryl is defined in F22 herein;

37) mono- and dialkylamino wherein alkyl is defined in A herein;

38) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

39) mono- and di-arylamino wherein aryl is defined in F21 herein;

40) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

41) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein;

42) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

G) substituted alkenyl having from 1 to 3 substituents selected from the group consisting of:

1) alkoxy as defined in F1 herein;

2) substituted alkoxy as defined in F2 herein;

3) acyl as defined in F7 herein;

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4) acylamino as defined in F8 herein;

5) acyloxy as defined in F9 herein;

6) amino;

7) aminoacyl as defined in F11 herein;

8) aminoacyloxy as defined in F12 herein;

9) cyano;

10) halogen selected from fluoro, chloro, bromo and iodo;

11) hydroxyl;

12) carboxyl;

13) carboxylalkyl as defined in F17 herein;

14) thiol;

15) thioalkoxy as defined in F19 herein;

16) substituted thioalkoxy as defined in F20 herein;

17) aryl as defined in F21 herein;

18) heteroaryl as defined in F22 herein;

19) heterocyclic as defined in F23 herein;

20) nitro;

21) -SO-alkyl wherein alkyl is defined in A herein;

22) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

23) -SO-aryl wherein aryl is defined in F21 herein;

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24) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

25) -SO_2-alkyl wherein alkyl is defined in A herein;

26) -SO_2-substituted alkyl wherein substituted alkyl is defined in F herein;

27) -SO_2-aryl wherein aryl is defined in F21 herein;

28) -SO_2-heteroaryl wherein heteroaryl is defined in F22 herein;

29) mono- and dialkylamino wherein alkyl is defined in A herein;

30) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

31) mono- and di-arylamino wherein aryl is defined in F21 herein;

32) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

33) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein; and

34) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

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H) substituted alkynyl of from 1 to 3 substituents selected from:

1) alkoxy as defined in F1 herein;

2) substituted alkoxy as defined in F2 herein;

3) acyl as defined in F7 herein;

4) acylamino as defined in F8 herein;

5) acyloxy as defined in F9 herein;

6) amino;

7) aminoacyl as defined in F11 herein;

8) aminoacyloxy as defined in F12 herein;

9) cyano;

10) halogen selected from fluoro, chloro, bromo and iodo;

11) hydroxyl;

12) carboxyl;

13) carboxylalkyl as defined in F17 herein;

14) thiol;

15) thioalkoxy as defined in F19 herein;

16) substituted thioalkoxy as defined in F20 herein;

17) aryl as defined in F21 herein;

18) heteroaryl as defined in F22 herein;

19) heterocyclic as defined in F23 herein;

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20) nitro;

21) -SO-alkyl wherein alkyl is defined in A herein;

22) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

23) -SO-aryl wherein aryl is defined in F21 herein;

24) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

25) $-SO_2$-alkyl wherein alkyl is defined in A herein;

26) $-SO_2$-substituted alkyl wherein substituted alkyl is defined in F herein;

27) $-SO_2$-aryl wherein aryl is defined in F21 herein;

28) $-SO_2$-heteroaryl wherein heteroaryl is defined in F22 herein;

29) mono- and dialkylamino wherein alkyl is defined in A herein;

30) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

31) mono- and di-arylamino wherein aryl is defined in F21 herein;

32) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

33) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein; and

34) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and

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heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

I) substituted cycloalkyl having 3 to 12 carbon atoms and from 1 to 5 substituents selected from the group consisting of:

1) hydroxy;

2) acyl as defined in F7 herein;

3) acyloxy as defined in F9 herein;

4) alkyl as defined in A herein;

5) substituted alkyl as defined in F herein;

6) alkoxy as defined in F1 herein;

7) substituted alkoxy as defined in F2 herein;

8) alkenyl as defined in B herein;

9) substituted alkenyl as defined in G herein;

10) alkynyl as defined in C herein;

11) substituted alkynyl as defined in H herein;

12) amino;

13) aminoacyl as defined in F11 herein;

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14) alkaryl of the formula -alkylene-aryl having 8 carbon atoms in the alkylene moiety and aryl is defined in F21 herein;

15) aryl as defined in F21 herein;

16) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

17) carboxyl;

18) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

19) cyano;

20) halo selected from fluoro, chloro, bromo and iodo;

21) nitro;

22) heteroaryl as defined in F22 herein;

23) thioalkoxy as defined in F19 herein;

24) substituted thioalkoxy as defined in F20 herein; and

25) trihalomethyl wherein halo is selected from fluoro, chloro, bromo and iodo;

J) substituted cycloalkenyl having from 4 to 8 carbon atoms and from 1 to 5 substituents selected from the group consisting of:

1) hydroxy;

2) acyl as defined in F7 herein;

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3) acyloxy as defined in F9 herein;

4) alkyl as defined in A herein;

5) substituted alkyl as defined in F herein;

6) alkoxy as defined in F1 herein;

7) substituted alkoxy as defined in F2 herein;

8) alkenyl as defined in B herein;

9) substituted alkenyl as defined in G herein;

10) alkynyl as defined in C herein;

11) substituted alkynyl as defined in H herein;

12) amino;

13) aminoacyl as defined in F11 herein;

14) alkaryl of the formula -alkylene-aryl having 8 carbon atoms in the alkylene moiety and aryl is defined in F21 herein;

15) aryl as defined in F21 herein;

16) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

17) carboxyl;

18) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

19) cyano;

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20) halo selected from fluoro, chloro, bromo and iodo;

21) nitro;

22) heteroaryl as defined in F22 herein;

23) thioalkoxy as defined in F19 herein;

24) substituted thioalkoxy as defined in F20 herein; and

25) trihalomethyl wherein halo is selected from fluoro, chloro, bromo and iodo;

K) aryl as defined in F21 herein;

L) heteroaryl as defined in F22 herein; and

M) heterocyclic as defined in F23 herein;

R^2 is independently selected from the group consisting of: [alkyl, alkenyl, alkynyl, substituted alkyl, substituted alkenyl, substituted alkynyl, cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclic, 2-aminopryrid-6-yl, 2-methylcyclopentyl, cyclohex-2-enyl and $-(CH_2)_4NHC(O)OC(CH_3)_3$;]

N) alkyl as defined in A herein;

O) alkenyl as defined in B herein;

P) alkynyl as defined in C herein;

Q) substituted alkyl as defined in F herein;

R) substituted alkenyl as defined in G herein;

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S) substituted alkynyl as defined in ~~H~~ herein;

T) cycloalkyl as defined in D herein;

U) aryl as defined in F21 herein;

V) heteroaryl as defined in F22 herein;

W) heterocyclic as defined in F23 herein;

W^{1}) 2-aminopyrid-6-yl;

W^{2}) 2-methylcyclopentyl;

W^{3}) cyclohex-2-enyl; and

W^{4}) $-(CH_2)_4NHC(O)OC(CH_3)_3$;

Z′ is represented by the formula -CX′X″-, -T-CH_2- or -T-C(O)- where T is selected from the group consisting oxygen, sulfur, $-NR^5$ where R^5 is hydrogen, [acyl, alkyl, optionally substituted aryl or optionally substituted heteroaryl group] acyl as defined in F7 herein, alkyl as defined in A herein, aryl as defined in F21 herein, or heteroaryl as defined in F22 herein; X′ is hydrogen, hydroxy or fluoro; X″ is hydrogen, hydroxy or fluoro, or X′ and X″ together form an oxo group;

Q is selected from the group of monocyclic and fused polycyclic groups having the formulas:

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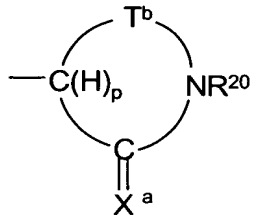

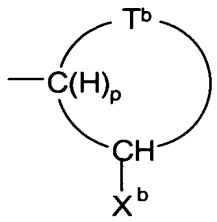

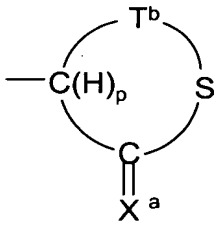

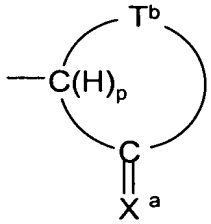

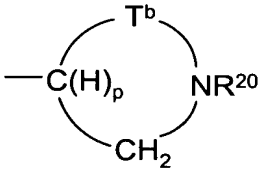

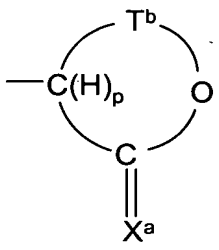

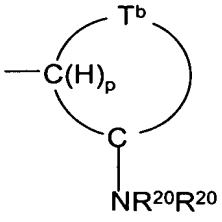

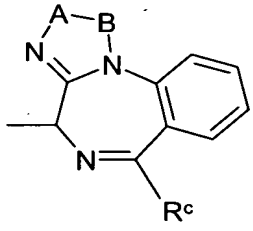

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wherein T^b is selected from the group consisting of alkylene, substituted alkylene, alkenylene, substituted alkenylene, $-(R^{21}Z^a)_qR^{21}-$ and $-Z^aR^{21}-$ where Z^a is a substituent selected from the group consisting of -O-, -S- and $>NR^{20}$, each R^{20} is independently selected from the group consisting of alkyl[, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, substituted alkyl, substituted alkenyl, substituted alkynyl, optionally substituted aryl, optionally substituted heteroaryl and optionally substituted heterocyclic,] as defined in A herein, alkenyl as defined in B herein, alkynyl as defined in C herein, cycloalkyl as defined in D herein, cycloalkenyl as defined in E herein, substituted alkyl as defined in F herein, substituted alkenyl as defined in G herein, substituted alkynyl as defined in H herein, substituted aryl as defined in F21 herein, substituted heteroaryl as defined in F22 herein, and substituted heterocyclic as defined in F23 herein, each R^{21} is independently selected from the group consisting of alkylene, substituted alkylene, alkenylene and substituted alkenylene with the proviso that when Z^a is -O- or -S-, any unsaturation in the alkenylene and substituted alkenylene does not involve participation of the -O- or -S-, *q* is an integer of from 1 to 3;

X^a is oxo or thioxo; X^b is -OH or -SH;

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A-B is selected from a group of alkylene, alkenylene, substituted alkylene, substituted alkenylene and -N=CH-; R^c is selected from the group consisting of alkyl [, substituted alkyl, alkenyl, substituted alkenyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclic, cycloalkyl, and substituted cycloalkyl;] as defined in A herein, substituted alkyl as defined in F herein, alkenyl as defined in B herein, substituted alkenyl as defined in G herein, substituted aryl as defined in F21 herein, substituted heteroaryl as defined in F22 herein, substituted heterocyclic as defined in F23 herein, cycloalkyl as defined in D herein, and substituted cycloalkyl as defined in I herein;

p is an integer equal to 0 or 1 such that when *p* is zero, the ring defined by Q is unsaturated at the carbon atom of ring attachment to NH and when *p* is one, the ring is saturated at the carbon atom of ring attachment to NH;

[and] or pharmaceutically acceptable salts thereof;

with the following provisos:

AAA. when R^1 is 3,5-difluorophenyl, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then the group defined by Q, does not form a 2-(S)-indanol group;

BBB. when R^1 is phenyl, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then the group defined by Q, does not form a trans-2-hydroxy-cyclohex-1-yl group;

CCC. when R^1 is cyclopropyl, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then the group defined by Q, does not form an N-methylcaprolactam group;

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DDD. when R^1 is 4-chlorobenzoyl-CH_2-, R^2 is -CH_3, Z′ is -CH_2-, and *p* is 1, then the group defined by Q, does not form an 2,3-dihydro-1-methyl-5-phenyl-1H-1,4-benzodiazepin-2-one;

EEE. when R^1 is 2-phenylphenyl, R^2 is -CH_3, Z′ is -CH_2-, and *p* is 1, then the group defined by Q, does not form an 7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one;

FFF. when R^1 is $CH_3OC(O)CH_2$-, R^2 is -CH_3, Z′ is -CH_2-, and *p* is 1, then the group defined by Q, does not form an 2,3-dihydro-1-(*t*-butylC(O)CH_2-)-5-(2-pyridyl)-1H-1,4-benzodiazepin-2-one;

GGG. when R^1 is 4-ethoxyphenyl, 2,4,6-trimethylphenyl, 4-phenylphenyl, $CH_3OC(O)CH_2$-, 4-$HOCH_2$-phenyl, 2,4,6-trifluorophenyl, 2-trifluoromethyl-4-fluorophenyl, or CH_3S-, R^2 is -CH_3, Z′ is -CH_2-, and *p* is 1, then the group defined by Q, does not form a 2,3-dihydro-1-(N,N-diethylamino-CH_2CH_2-)-5-(2-pyridyl)-1H-1,4-benzodiazepin-2-one;

HHH. when R^1 is 2,6-difluorophenyl, R^2 is -CH_3, Z′ is -CH(OH)-, and *p* is 1, then the group defined by Q, does not form a 2,3-dihydro-1-(N,N-diethylamino-CH_2CH_2-)-5-(2-pyridyl)-1H-1,4-benzodiazepin-2-one;

III. when the ring defined by Q forms a cycloalkyl, then it does not form a cycloalkyl of from 3 to 8 carbon atoms optionally substituted with 1 to 3 alkyl groups.

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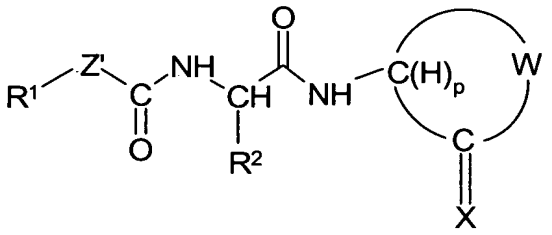
118. (Amended) A compound of formula IA:



IA

wherein R^1 is selected from the group consisting of: [alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, substituted alkyl, substituted alkenyl, substituted alkynyl, substituted cycloalkyl, substituted cycloalkenyl, optionally substituted aryl, optionally substituted heteroaryl and optionally substituted heterocyclic;]

A) alkyl of from 1 to 10 carbon atoms;

B) alkenyl of from 2 to 10 carbon atoms and 1-2 sites of alkenyl unsaturation;

C) alkynyl of from 2 to 10 carbon atoms and from 1-2 sites of alkynyl unsaturation;

D) cycloalkyl of from 3 to 12 carbon atoms;

E) cycloalkenyl of from 4 to 8 carbon atoms;

F) substituted alkyl of from 1 to 10 carbon atoms, having from 1 to 3 substituents selected from:

1) alkoxy of from 1 to 10 carbon atoms;

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2) substituted alkoxy of the formula substituted alkyl-O- where substituted alkyl is as defined in F herein;

3) cycloalkyl which is as defined in D herein;

4) substituted cycloalkyl is defined in I herein;

5) cycloalkenyl which is defined in E herein;

6) substituted cycloalkenyl which is defined in J herein;

7) acyl selected from alkyl-C(O)-, substituted alkyl-C(O)-, cycloalkyl-C(O)-, substituted cycloalkyl-C(O)-, aryl-C(O)-, heteroaryl-C(O)- and heterocyclic-C(O)- wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein cycloalkyl is defined in D herein; wherein substituted cycloalkyl is defined in I herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

8) acylamino having the formula -C(O)NRR where each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, or heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

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9) acyloxy selected from alkyl-C(O)O-, substituted alkyl-C(O)O-, cycloalkyl-C(O)O-, aryl-C(O)O-, heteroaryl-C(O)O-, and heterocyclic-C(O)O- wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein cycloalkyl is defined in D herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

10) amino;

11) aminoacyl having the formula -NRC(O)R wherein each R is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, and heterocyclic; wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

12) aminoacyloxy having the formula -NRC(O)OR wherein each R is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, and heterocyclic; wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

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13) cyano;

14) halogen;

15) hydroxyl;

16) carboxyl;

17) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

18) thiol;

19) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

20) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

21) aryl having from 6 to 14 ring carbon atoms, optionally substituted with from 1 to 5 substituents selected from the group consisting of:

a) hydroxy;

b) acyl as defined in F7 herein;

c) acyloxy as defined in F9 herein;

d) alkyl as defined in A herein;

e) substituted alkyl as defined in F herein;

f) alkoxy as defined in F1 herein;

g) substituted alkoxy as defined in F2 herein;

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h) alkenyl as defined in B herein;

i) substituted alkenyl as defined in G herein;

j) alkynyl as defined in C herein;

k) substituted alkynyl as defined in H herein;

l) amino;

m) aminoacyl as defined in F11 herein;

n) acylamino as defined in F8 herein;

o) alkaryl of the formula -alkylene-aryl having 8 carbon atoms in the alkylene moiety and aryl is defined in F21 herein;

p) aryl as defined in F21 herein;

q) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

r) azido;

s) carboxyl;

t) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

u) cyano;

v) halo selected from fluoro, chloro, bromo and iodo;

w) nitro;

x) heteroaryl as defined in F22 herein;

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y) heterocyclic as defined in F23 herein;

z) aminoacyloxy as defined in F12 herein;

aa) oxyacylamino having the formula -OC(O)NRR where each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, or heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

bb) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

cc) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

dd) thioaryloxy having the formula -S-aryl wherein aryl is defined in F21 herein;

ee) thioheteroaryloxy having the formula -S-heteroaryl wherein heteroaryl is defined F22 herein;

ff) -SO-alkyl wherein alkyl is defined in A herein;

gg) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

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hh) -SO-aryl wherein aryl is defined in F21 herein;

ii) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

jj) $-SO_2$-alkyl wherein alkyl is defined in A herein;

kk) $-SO_2$-substituted alkyl wherein substituted alkyl is defined in F herein;

ll) $-SO_2$-aryl wherein aryl is defined in F21 herein;

mm) $-SO_2$-heteroaryl wherein heteroaryl is defined in F22 herein;

nn) trihalomethyl wherein halo is defined in I20 herein;

oo) mono- and dialkylamino wherein alkyl is defined in A herein;

pp) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

qq) mono- and di-arylamino wherein aryl is defined in F21 herein;

rr) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

ss) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein;

tt) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl,

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heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

22) heteroaryl of from 1 to 15 ring carbon atoms and 1 to 4 ring heteroatoms selected from oxygen, nitrogen and sulfur, optionally substituted with from 1 to 5 substituents selected from:

a) alkyl as defined in A herein;

b) substituted alkyl as defined in F herein;

c) alkoxy as defined in F1 herein;

d) substituted alkoxy as defined in F2 herein;

e) aryl as defined in F21 herein;

f) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

g) halo selected from fluoro, chloro, bromo and iodo;

h) nitro;

i) heteroaryl as defined in F22 herein;

j) thiol;

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k) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

l) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

m) thioaryloxy having the formula -S-aryl wherein aryl is defined in F21 herein; and

n) trihalomethyl wherein halo is defined in I20 herein;

23) heterocyclic of from 1 to 15 ring carbon atoms and from 1 to 4 ring atoms selected from nitrogen, sulfur and oxygen, optionally substituted with from 1 to 5 substituents selected from:

a) alkyl as defined in A herein;

b) substituted alkyl as defined in F herein;

c) alkoxy as defined in F1 herein;

d) substituted alkoxy as defined in F2 herein;

e) aryl as defined in F21 herein;

f) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

g) halo selected from fluoro, chloro, bromo and iodo;

h) nitro;

i) heteroaryl as defined in F22 herein;

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j) thiol;

k) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

l) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

m) thioaryloxy having the formula -S-aryl wherein aryl is defined in F21 herein; and

n) trihalomethyl wherein halo is selected from fluoro, chloro, bromo and iodo;

24) aryloxy of the formula -O-aryl wherein aryl is defined in F21 herein;

25) heteroaryloxy of the formula -O-heteroaryl wherein heteroaryl is defined in F22 herein;

26) hydroxyamino;

27) alkoxyamino wherein alkoxy is defined in F1 herein;

28) nitro;

29) -SO-alkyl wherein alkyl is defined in A herein;

30) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

31) -SO-aryl wherein aryl is defined in F21 herein;

32) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

33) $-SO_2$-alkyl wherein alkyl is defined in A herein;

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34) -SO_2-substituted alkyl wherein substituted alkyl is defined in F herein;

35) -SO_2-aryl wherein aryl is defined in F21 herein;

36) -SO_2-heteroaryl wherein heteroaryl is defined in F22 herein;

37) mono- and dialkylamino wherein alkyl is defined in A herein;

38) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

39) mono- and di-arylamino wherein aryl is defined in F21 herein;

40) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

41) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein;

42) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

G) substituted alkenyl having from 1 to 3 substituents selected from the group consisting of:

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1) alkoxy as defined in F1 herein;

2) substituted alkoxy as defined in F2 herein;

3) acyl as defined in F7 herein;

4) acylamino as defined in F8 herein;

5) acyloxy as defined in F9 herein;

6) amino;

7) aminoacyl as defined in F11 herein;

8) aminoacyloxy as defined in F12 herein;

9) cyano;

10) halogen selected from fluoro, chloro, bromo and iodo;

11) hydroxyl;

12) carboxyl;

13) carboxylalkyl as defined in F17 herein;

14) thiol;

15) thioalkoxy as defined in F19 herein;

16) substituted thioalkoxy as defined in F20 herein;

17) aryl as defined in F21 herein;

18) heteroaryl as defined in F22 herein;

19) heterocyclic as defined in F23 herein;

20) nitro;

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21) -SO-alkyl wherein alkyl is defined in A herein;

22) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

23) -SO-aryl wherein aryl is defined in F21 herein;

24) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

25) $-SO_2$-alkyl wherein alkyl is defined in A herein;

26) $-SO_2$-substituted alkyl wherein substituted alkyl is defined in F herein;

27) $-SO_2$-aryl wherein aryl is defined in F21 herein;

28) $-SO_2$-heteroaryl wherein heteroaryl is defined in F22 herein;

29) mono- and dialkylamino wherein alkyl is defined in A herein;

30) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

31) mono- and di-arylamino wherein aryl is defined in F21 herein;

32) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

33) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein; and

34) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted

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alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

H) substituted alkynyl of from 1 to 3 substituents selected from:

1) alkoxy as defined in F1 herein;

2) substituted alkoxy as defined in F2 herein;

3) acyl as defined in F7 herein;

4) acylamino as defined in F8 herein;

5) acyloxy as defined in F9 herein;

6) amino;

7) aminoacyl as defined in F11 herein;

8) aminoacyloxy as defined in F12 herein;

9) cyano;

10) halogen selected from fluoro, chloro, bromo and iodo;

11) hydroxyl;

12) carboxyl;

13) carboxylalkyl as defined in F17 herein;

14) thiol;

15) thioalkoxy as defined in F19 herein;

16) substituted thioalkoxy as defined in F20 herein;

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17) aryl as defined in F21 herein;

18) heteroaryl as defined in F22 herein;

19) heterocyclic as defined in F23 herein;

20) nitro;

21) -SO-alkyl wherein alkyl is defined in A herein;

22) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

23) -SO-aryl wherein aryl is defined in F21 herein;

24) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

25) -SO_2-alkyl wherein alkyl is defined in A herein;

26) -SO_2-substituted alkyl wherein substituted alkyl is defined in F herein;

27) -SO_2-aryl wherein aryl is defined in F21 herein;

28) -SO_2-heteroaryl wherein heteroaryl is defined in F22 herein;

29) mono- and dialkylamino wherein alkyl is defined in A herein;

30) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

31) mono- and di-arylamino wherein aryl is defined in F21 herein;

32) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

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33) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein; and

34) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

I) substituted cycloalkyl having 3 to 12 carbon atoms and from 1 to 5 substituents selected from the group consisting of:

1) hydroxy;

2) acyl as defined in F7 herein;

3) acyloxy as defined in F9 herein;

4) alkyl as defined in A herein;

5) substituted alkyl as defined in F herein;

6) alkoxy as defined in F1 herein;

7) substituted alkoxy as defined in F2 herein;

8) alkenyl as defined in B herein;

9) substituted alkenyl as defined in G herein;

10) alkynyl as defined in C herein;

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11) substituted alkynyl as defined in H herein;

12) amino;

13) aminoacyl as defined in F11 herein;

14) alkaryl of the formula -alkylene-aryl having 8 carbon atoms in the alkylene moiety and aryl is defined in F21 herein;

15) aryl as defined in F21 herein;

16) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

17) carboxyl;

18) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

19) cyano;

20) halo selected from fluoro, chloro, bromo and iodo;

21) nitro;

22) heteroaryl as defined in F22 herein;

23) thioalkoxy as defined in F19 herein;

24) substituted thioalkoxy as defined in F20 herein; and

25) trihalomethyl wherein halo is selected from fluoro, chloro, bromo and iodo;

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J) substituted cycloalkenyl having from 4 to 8 carbon atoms and from 1 to 5 substituents selected from the group consisting of:

1) hydroxy;

2) acyl as defined in F7 herein;

3) acyloxy as defined in F9 herein;

4) alkyl as defined in A herein;

5) substituted alkyl as defined in F herein;

6) alkoxy as defined in F1 herein;

7) substituted alkoxy as defined in F2 herein;

8) alkenyl as defined in B herein;

9) substituted alkenyl as defined in G herein;

10) alkynyl as defined in C herein;

11) substituted alkynyl as defined in H herein;

12) amino;

13) aminoacyl as defined in F11 herein;

14) alkaryl of the formula -alkylene-aryl having 8 carbon atoms in the alkylene moiety and aryl is defined in F21 herein;

15) aryl as defined in F21 herein;

16) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

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17) carboxyl;

18) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

19) cyano;

20) halo selected from fluoro, chloro, bromo and iodo;

21) nitro;

22) heteroaryl as defined in F22 herein;

23) thioalkoxy as defined in F19 herein;

24) substituted thioalkoxy as defined in F20 herein; and

25) trihalomethyl wherein halo is selected from fluoro, chloro, bromo and iodo;

K) aryl as defined in F21 herein;

L) heteroaryl as defined in F22 herein; and

M) heterocyclic as defined in F23 herein;

R^2 is independently selected from the group consisting of: [alkyl, alkenyl, alkynyl, substituted alkyl, substituted alkenyl, substituted alkynyl, cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclic, 2-aminopryrid-6-yl, 2-methylcyclopentyl, cyclohex-2-enyl and $-(CH_2)_4NHC(O)OC(CH_3)_3$;]

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N) alkyl as defined in A herein;

O) alkenyl as defined in B herein;

P) alkynyl as defined in C herein;

Q) substituted alkyl as defined in F herein;

R) substituted alkenyl as defined in G herein;

S) substituted alkynyl as defined in H herein;

T) cycloalkyl as defined in D herein;

U) aryl as defined in F21 herein;

V) heteroaryl as defined in F22 herein;

W) heterocyclic as defined in F23 herein;

W^{1}) 2-aminopyrid-6-yl;

W^{2}) 2-methylcyclopentyl;

W^{3}) cyclohex-2-enyl; and

W^{4}) $-(CH_2)_4NHC(O)OC(CH_3)_3$;

Z′ is represented by the formula -CX′X″-, -T-CH_2- or -T-C(O)-, where T is selected from the group consisting oxygen, sulfur, -NR^5 where R^5 is hydrogen, [acyl, alkyl, optionally substituted aryl or optionally substituted heteroaryl group] acyl as defined in F7 herein, alkyl as defined in A herein, aryl as defined in F21 herein, or heteroaryl as defined in F22 herein;

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W, together with $-C(H)_pC(=X)-$, forms a cycloalkyl [, cycloalkenyl, optionally substituted heterocyclic, substituted cycloalkyl, or substituted cycloalkenyl group wherein each of said cycloalkyl, cycloalkenyl, optionally substituted heterocyclic, substituted cycloalkyl or substituted cycloalkenyl group is optionally fused to form a bi- or multi-fused ring system with one or more ring structures selected from the group consisting of cycloalkyl, cycloalkenyl, heterocyclic, aryl and heteroaryl group which, in turn, each of such ring structures is optionally substituted with 1 to 4 substituents selected from the group consisting of hydroxyl, halo, alkoxy, substituted alkoxy, thioalkoxy, substituted thioalkoxy, nitro, cyano, carboxyl, carboxyl esters, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, amino, N-alkylamino, N,N-dialkylamino, N-substituted alkylamino, N-alkyl N-substituted alkylamino, N,N-disubstituted alkylamino, $-NHC(O)R^4$, $-NHSO_2R^4$, $-C(O)NH_2$, $-C(O)NHR^4$, $-C(O)NR^4R^4$, $-S(O)R^4$, $-S(O)_2R^4$, $-S(O)_2NHR^4$ and $-S(O)_2NR^4R^4$ where each R^4 is independently selected from the group consisting of alkyl, substituted alkyl, or optionally substituted aryl;] as defined in D herein, cycloalkenyl as defined in E herein, heterocyclic as defined in F23 herein, cycloalkyl as defined in I herein, substituted cycloalkenyl as defined in J herein, wherein each of said cycloalkyl, cycloalkenyl, heterocyclic, substituted cycloalkyl or substituted cycloalkenyl group is optionally fused to form a bi- or multi-fused ring system with one or more ring structures selected from the group consisting of cycloalkyl as defined in D herein, cycloalkenyl as defined in E herein, heterocyclic as defined in F23 herein, aryl as

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defined in F21 herein, and heteroaryl as defined in F22 herein, where, in turn, each of said ring structures is optionally substituted with 1 to 4 substituents selected from the group consisting of hydroxyl, halo, alkoxy as defined in F1 herein, substituted alkoxy as defined in F2 herein, thioalkoxy as defined in F19 herein, substituted thioalkoxy as defined in F20 herein, nitro, cyano, carboxyl, carboxyl esters, alkyl as defined in A herein, substituted alkyl as defined in F herein, alkenyl as defined in B herein, substituted alkenyl as defined in G herein, alkynyl as defined in C herein, substituted alkynyl as defined in H herein, amino, N-alkylamino wherein alkyl is defined in A herein, N,N-dialkylamino wherein alkyl is defined in A herein, N-substituted alkylamino wherein substituted alkyl is defined in F herein, N-alkyl N-substituted alkylamino wherein alkyl is defined in A herein and wherein substituted alkyl is defined in F herein, N-N-disubstituted alkylamino wherein substituted alkyl is defined in F herein, $-NHC(O)R^4$, $-NHSO_2R^4$, $-C(O)NH_2$, $-C(O)NHR^4$, $-C(O)NR^4R^4$, $-S(O)R^4$, $-S(O)_2R^4$, $-S(O)_2NHR^4$, and $-S(O)_2NR^4R^4$, where each R^4 is independently selected from the group consisting of alkyl as defined in A herein, substituted alkyl as defined in F herein, or substituted aryl as defined in F21 herein;

X is selected from the group consisting of =O; =S; -H, -OH; H,-SH; and H,H;

p is an integer equal to 0 or 1 such that when *p* is zero, the ring defined by W and $-C(H)_pC(=X)-$ is unsaturated at the carbon atom of ring attachment to NH, and when *p* is one, the ring is saturated at the carbon atom of ring attachment to NH;

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[and] or pharmaceutically acceptable salts thereof;

with the following provisos:

AAA. when R^1 is 3,5-difluorophenyl, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then W, together with >CH and >C=X, does not form a 2-(S)-indanol group;

BBB. when R^1 is phenyl, R^2 is $-CH_3$, Z′ is $-CH_2-$, *p* is 1, then W, together with >CH and >C=X, does not form a trans-2-hydroxy-cyclohex-1-yl group;

CCC. when R^1 is cyclopropyl, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is is 1, then W, together with >CH and >C=X, does not form an N-methylcaprolactam group;

DDD. when R^1 is 4-chlorobenzoyl-CH_2-, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then W, together with >CH and >C=X, does not form an 2,3-dihydro-1-methyl-5-phenyl-1H-1,4-benzodiazepin-2-one;

EEE. when R^1 is 2-phenylphenyl, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then W, together with >CH and >C=X, does not form an 7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one;

FFF. when R^1 is $CH_3OC(O)CH_2-$, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then W, together with >CH and >C=X, does not form an 2,3-dihydro-1-(*t*-butylC(O)CH_2-)-5-(2-pyridyl)-1H-1,4-benzodiazepin-2-one;

GGG. when R^1 is 4-ethoxyphenyl, 2,4,6-trimethylphenyl, 4-phenylphenyl, $CH_3OC(O)CH_2-$, 4-$HOCH_2$-phenyl, 2,4,6-trifluorophenyl, 2-trifluoromethyl-4-fluorophenyl, or CH_3S-, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then W,

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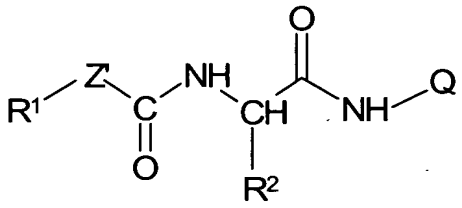
together with >CH and >C=X, does not form a 2,3-dihydro-1-(N,N-diethylamino-CH_2CH_2-)-5-(2-pyridyl)-1H-1,4-benzodiazepin-2-one;

HHH. when R^1 is 2,6-difluorophenyl, R^2 is $-CH_3$, Z′ is -CH(OH)-, and *p* is 1, then W, together with >CH and >C=X, does not form a 2,3-dihydro-1-(N,N-diethylamino-CH_2CH_2-)-5-(2-pyridyl)-1H-1,4-benzodiazepin-2-one;

III. when the ring defined by W and $-C(H)_pC(=X)-$ forms a cycloalkyl, then it does not form a cycloalkyl of from 3 to 8 carbon atoms optionally substituted with 1 to 3 alkyl groups.

120. (Amended) A compound of formula IB:



IB

wherein R^1 is selected from the group consisting of: [alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, substituted alkyl, substituted alkenyl, substituted alkynyl, substituted cycloalkyl, substituted cycloalkenyl, optionally substituted aryl, optionally substituted heteroaryl and optionally substituted heterocyclic;]

A) alkyl of from 1 to 10 carbon atoms;

B) alkenyl of from 2 to 10 carbon atoms and 1-2 sites of alkenyl unsaturation;

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C) alkynyl of from 2 to 10 carbon atoms and from 1-2 sites of alkynyl unsaturation;

D) cycloalkyl of from 3 to 12 carbon atoms;

E) cycloalkenyl of from 4 to 8 carbon atoms;

F) substituted alkyl of from 1 to 10 carbon atoms, having from 1 to 3 substituents selected from:

1) alkoxy of from 1 to 10 carbon atoms;

2) substituted alkoxy of the formula substituted alkyl-O- where substituted alkyl is as defined in F herein;

3) cycloalkyl which is as defined in D herein;

4) substituted cycloalkyl is defined in I herein;

5) cycloalkenyl which is defined in E herein;

6) substituted cycloalkenyl which is defined in J herein;

7) acyl selected from alkyl-C(O)-, substituted alkyl-C(O)-, cycloalkyl-C(O)-, substituted cycloalkyl-C(O)-, aryl-C(O)-, heteroaryl-C(O)- and heterocyclic-C(O)- wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein cycloalkyl is defined in D herein; wherein substituted cycloalkyl is defined in I herein; wherein aryl is defined in F21 herein; wherein

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heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

8) acylamino having the formula -C(O)NRR where each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, or heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

9) acyloxy selected from alkyl-C(O)O-, substituted alkyl-C(O)O-, cycloalkyl-C(O)O-, aryl-C(O)O-, heteroaryl-C(O)O-, and heterocyclic-C(O)O- wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein cycloalkyl is defined in D herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

10) amino;

11) aminoacyl having the formula -NRC(O)R wherein each R is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, and heterocyclic; wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein;

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wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

12) aminoacyloxy having the formula -NRC(O)OR wherein each R is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, and heterocyclic; wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

13) cyano;

14) halogen;

15) hydroxyl;

16) carboxyl;

17) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

18) thiol;

19) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

20) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

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21) aryl having from 6 to 14 ring carbon atoms, optionally substituted with from 1 to 5 substituents selected from the group consisting of:

a) hydroxy;

b) acyl as defined in F7 herein;

c) acyloxy as defined in F9 herein;

d) alkyl as defined in A herein;

e) substituted alkyl as defined in F herein;

f) alkoxy as defined in F1 herein;

g) substituted alkoxy as defined in F2 herein;

h) alkenyl as defined in B herein;

i) substituted alkenyl as defined in G herein;

j) alkynyl as defined in C herein;

k) substituted alkynyl as defined in H herein;

l) amino;

m) aminoacyl as defined in F11 herein;

n) acylamino as defined in F8 herein;

o) alkaryl of the formula -alkylene-aryl having 8 carbon atoms in the alkylene moiety and aryl is defined in F21 herein;

p) aryl as defined in F21 herein;

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q) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

r) azido;

s) carboxyl;

t) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

u) cyano;

v) halo selected from fluoro, chloro, bromo and iodo;

w) nitro;

x) heteroaryl as defined in F22 herein;

y) heterocyclic as defined in F23 herein;

z) aminoacyloxy as defined in F12 herein;

aa) oxyacylamino having the formula -OC(O)NRR where each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, or heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

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bb) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

cc) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

dd) thioaryloxy having the formula -S-aryl wherein aryl is defined in F21 herein;

ee) thioheteroaryloxy having the formula -S-heteroaryl wherein heteroaryl is defined F22 herein;

ff) -SO-alkyl wherein alkyl is defined in A herein;

gg) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

hh) -SO-aryl wherein aryl is defined in F21 herein;

ii) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

jj) $-SO_2$-alkyl wherein alkyl is defined in A herein;

kk) $-SO_2$-substituted alkyl wherein substituted alkyl is defined in F herein;

ll) $-SO_2$-aryl wherein aryl is defined in F21 herein;

mm) $-SO_2$-heteroaryl wherein heteroaryl is defined in F22 herein;

nn) trihalomethyl wherein halo is defined in I20 herein;

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oo) mono- and dialkylamino wherein alkyl is defined in A herein;

pp) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

qq) mono- and di-arylamino wherein aryl is defined in F21 herein;

rr) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

ss) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein;

tt) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

22) heteroaryl of from 1 to 15 ring carbon atoms and 1 to 4 ring heteroatoms selected from oxygen, nitrogen and sulfur, optionally substituted with from 1 to 5 substituents selected from:

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a) alkyl as defined in A herein;

b) substituted alkyl as defined in F herein;

c) alkoxy as defined in F1 herein;

d) substituted alkoxy as defined in F2 herein;

e) aryl as defined in F21 herein;

f) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

g) halo selected from fluoro, chloro, bromo and iodo;

h) nitro;

i) heteroaryl as defined in F22 herein;

j) thiol;

k) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

l) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

m) thioaryloxy having the formula -S-aryl wherein aryl is defined in F21 herein; and

n) trihalomethyl wherein halo is defined in I20 herein;

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23) heterocyclic of from 1 to 15 ring carbon atoms and from 1 to 4 ring atoms selected from nitrogen, sulfur and oxygen, optionally substituted with from 1 to 5 substituents selected from:

a) alkyl as defined in A herein;

b) substituted alkyl as defined in F herein;

c) alkoxy as defined in F1 herein;

d) substituted alkoxy as defined in F2 herein;

e) aryl as defined in F21 herein;

f) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

g) halo selected from fluoro, chloro, bromo and iodo;

h) nitro;

i) heteroaryl as defined in F22 herein;

j) thiol;

k) thioalkoxy having the formula -S-alkyl, wherein alkyl is defined in A herein;

l) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in F herein;

m) thioaryloxy having the formula -S-aryl wherein aryl is defined in F21 herein; and

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n) trihalomethyl wherein halo is selected from fluoro, chloro, bromo and iodo;

24) aryloxy of the formula -O-aryl wherein aryl is defined in F21 herein;

25) heteroaryloxy of the formula -O-heteroaryl wherein heteroaryl is defined in F22 herein;

26) hydroxyamino;

27) alkoxyamino wherein alkoxy is defined in F1 herein;

28) nitro;

29) -SO-alkyl wherein alkyl is defined in A herein;

30) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

31) -SO-aryl wherein aryl is defined in F21 herein;

32) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

33) $-SO_2$-alkyl wherein alkyl is defined in A herein;

34) $-SO_2$-substituted alkyl wherein substituted alkyl is defined in F herein;

35) $-SO_2$-aryl wherein aryl is defined in F21 herein;

36) $-SO_2$-heteroaryl wherein heteroaryl is defined in F22 herein;

37) mono- and dialkylamino wherein alkyl is defined in A herein;

38) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

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39) mono- and di-arylamino wherein aryl is defined in F21 herein;

40) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

41) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein;

42) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

G) substituted alkenyl having from 1 to 3 substituents selected from the group consisting of:

1) alkoxy as defined in F1 herein;

2) substituted alkoxy as defined in F2 herein;

3) acyl as defined in F7 herein;

4) acylamino as defined in F8 herein;

5) acyloxy as defined in F9 herein;

6) amino;

7) aminoacyl as defined in F11 herein;

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8) aminoacyloxy as defined in F12 herein;

9) cyano;

10) halogen selected from fluoro, chloro, bromo and iodo;

11) hydroxyl;

12) carboxyl;

13) carboxylalkyl as defined in F17 herein;

14) thiol;

15) thioalkoxy as defined in F19 herein;

16) substituted thioalkoxy as defined in F20 herein;

17) aryl as defined in F21 herein;

18) heteroaryl as defined in F22 herein;

19) heterocyclic as defined in F23 herein;

20) nitro;

21) -SO-alkyl wherein alkyl is defined in A herein;

22) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

23) -SO-aryl wherein aryl is defined in F21 herein;

24) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

25) $-SO_2$-alkyl wherein alkyl is defined in A herein;

26) $-SO_2$-substituted alkyl wherein substituted alkyl is defined in F herein;

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27) -SO_2-aryl wherein aryl is defined in F21 herein;

28) -SO_2-heteroaryl wherein heteroaryl is defined in F22 herein;

29) mono- and dialkylamino wherein alkyl is defined in A herein;

30) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

31) mono- and di-arylamino wherein aryl is defined in F21 herein;

32) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

33) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein; and

34) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

H) substituted alkynyl of from 1 to 3 substituents selected from:

1) alkoxy as defined in F1 herein;

2) substituted alkoxy as defined in F2 herein;

3) acyl as defined in F7 herein;

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4) acylamino as defined in F8 herein;

5) acyloxy as defined in F9 herein;

6) amino;

7) aminoacyl as defined in F11 herein;

8) aminoacyloxy as defined in F12 herein;

9) cyano;

10) halogen selected from fluoro, chloro, bromo and iodo;

11) hydroxyl;

12) carboxyl;

13) carboxylalkyl as defined in F17 herein;

14) thiol;

15) thioalkoxy as defined in F19 herein;

16) substituted thioalkoxy as defined in F20 herein;

17) aryl as defined in F21 herein;

18) heteroaryl as defined in F22 herein;

19) heterocyclic as defined in F23 herein;

20) nitro;

21) -SO-alkyl wherein alkyl is defined in A herein;

22) -SO-substituted alkyl wherein substituted alkyl is defined in F herein;

23) -SO-aryl wherein aryl is defined in F21 herein;

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24) -SO-heteroaryl wherein heteroaryl is defined in F22 herein;

25) $-SO_2$-alkyl wherein alkyl is defined in A herein;

26) $-SO_2$-substituted alkyl wherein substituted alkyl is defined in F herein;

27) $-SO_2$-aryl wherein aryl is defined in F21 herein;

28) $-SO_2$-heteroaryl wherein heteroaryl is defined in F22 herein;

29) mono- and dialkylamino wherein alkyl is defined in A herein;

30) mono- and di-substituted alkylamino wherein substituted alkyl is defined in F herein;

31) mono- and di-arylamino wherein aryl is defined in F21 herein;

32) mono- and di-heteroarylamino wherein heteroaryl is defined in F22 herein;

33) mono- and di-heterocyclicamino wherein heterocyclic is defined in F23 herein; and

34) unsymmetric di-substituted amino having different substituents selected from alkyl, substituted alkyl, aryl, heteroaryl and heterocyclic wherein alkyl is defined in A herein; wherein substituted alkyl is defined in F herein; wherein aryl is defined in F21 herein; wherein heteroaryl is defined in F22 herein; and wherein heterocyclic is defined in F23 herein;

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I) substituted cycloalkyl having 3 to 12 carbon atoms and from 1 to 5 substituents selected from the group consisting of:

1) hydroxy;

2) acyl as defined in F7 herein;

3) acyloxy as defined in F9 herein;

4) alkyl as defined in A herein;

5) substituted alkyl as defined in F herein;

6) alkoxy as defined in F1 herein;

7) substituted alkoxy as defined in F2 herein;

8) alkenyl as defined in B herein;

9) substituted alkenyl as defined in G herein;

10) alkynyl as defined in C herein;

11) substituted alkynyl as defined in H herein;

12) amino;

13) aminoacyl as defined in F11 herein;

14) alkaryl of the formula -alkylene-aryl having 8 carbon atoms in the alkylene moiety and aryl is defined in F21 herein;

15) aryl as defined in F21 herein;

16) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

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17) carboxyl;

18) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

19) cyano;

20) halo selected from fluoro, chloro, bromo and iodo;

21) nitro;

22) heteroaryl as defined in F22 herein;

23) thioalkoxy as defined in F19 herein;

24) substituted thioalkoxy as defined in F20 herein; and

25) trihalomethyl wherein halo is selected from fluoro, chloro, bromo and iodo;

J) substituted cycloalkenyl having from 4 to 8 carbon atoms and from 1 to 5 substituents selected from the group consisting of:

1) hydroxy;

2) acyl as defined in F7 herein;

3) acyloxy as defined in F9 herein;

4) alkyl as defined in A herein;

5) substituted alkyl as defined in F herein;

6) alkoxy as defined in F1 herein;

7) substituted alkoxy as defined in F2 herein;

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8) alkenyl as defined in B herein;

9) substituted alkenyl as defined in G herein;

10) alkynyl as defined in C herein;

11) substituted alkynyl as defined in H herein;

12) amino;

13) aminoacyl as defined in F11 herein;

14) alkaryl of the formula -alkylene-aryl having 8 carbon atoms in the alkylene moiety and aryl is defined in F21 herein;

15) aryl as defined in F21 herein;

16) aryloxy having the formula -O-aryl wherein aryl is defined in F21 herein;

17) carboxyl;

18) carboxylalkyl having the formula "-C(O)Oalkyl" wherein alkyl is defined in A herein;

19) cyano;

20) halo selected from fluoro, chloro, bromo and iodo;

21) nitro;

22) heteroaryl as defined in F22 herein;

23) thioalkoxy as defined in F19 herein;

24) substituted thioalkoxy as defined in F20 herein; and

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25) trihalomethyl wherein halo is selected from fluoro, chloro, bromo and iodo;

K) aryl as defined in F21 herein;

L) heteroaryl as defined in F22 herein; and

M) heterocyclic as defined in F23 herein;

R^2 is selected from the group consisting of; [alkyl, alkenyl, alkynyl, substituted alkyl, substituted alkenyl, substituted alkynyl, cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclic, 2-aminopryrid-6-yl, 2-methylcyclopentyl, cyclohex-2-enyl and $-(CH_2)_4NHC(O)OC(CH_3)_3$;]

N) alkyl as defined in A herein;

O) alkenyl as defined in B herein;

P) alkynyl as defined in C herein;

Q) substituted alkyl as defined in F herein;

R) substituted alkenyl as defined in G herein;

S) substituted alkynyl as defined in H herein;

T) cycloalkyl as defined in D herein;

U) aryl as defined in F21 herein;

V) heteroaryl as defined in F22 herein;

W) heterocyclic as defined in F23 herein;

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W[1]) 2-aminopyrid-6-yl;

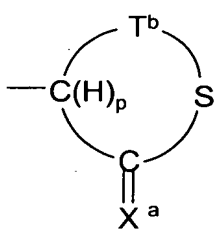
W[2]) 2-methylcyclopentyl;

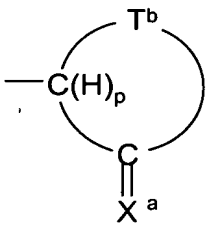
W[3]) cyclohex-2-enyl; and

W[4]) $-(CH_2)_4NHC(O)OC(CH_3)_3$;

Z' is represented by the formula -CX'X''-, -T-CH_2- or -T-C(O)-, where T is selected from the group consisting of oxygen, sulfur, -NR^5, where R^5 is hydrogen, acyl as defined in F7 herein, alkyl as defined in A herein, aryl as defined in F21 herein, or heteroaryl as defined in F22 herein [alkyl, optionally substituted aryl or optionally substituted heteroaryl group]; X′ is hydrogen, hydroxy or fluoro; X″ is hydrogen, hydroxy or fluoro, or X′ and X″ together form an oxo group;

Q is selected from the group of monocyclic and fused polycyclic groups having the formulas:





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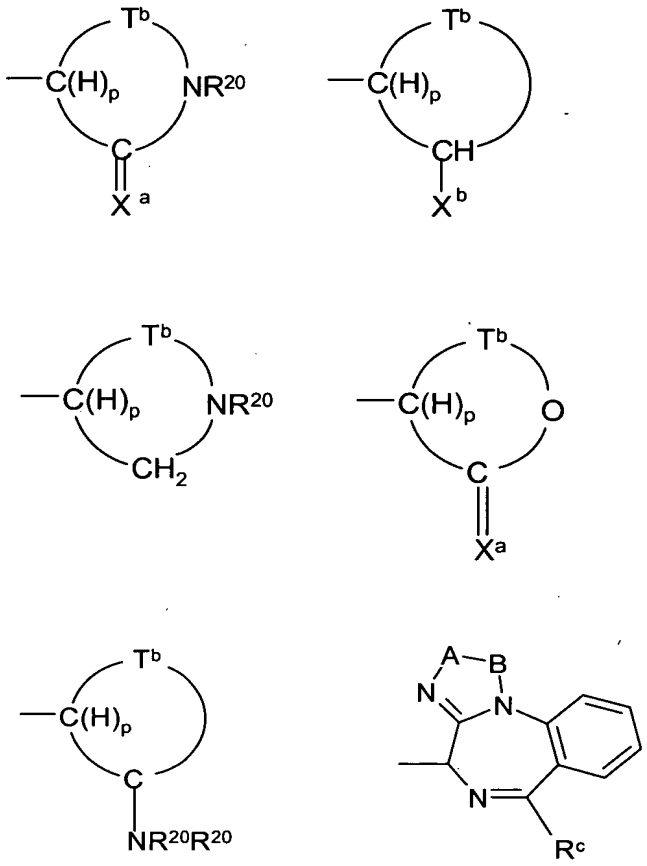

wherein T^b is selected from the group consisting of alkylene, substituted alkylene, alkenylene, substituted alkenylene, $-(R^{21}Z^a)_qR^{21}-$ and $-Z^aR^{21}-$ where Z^a is a substituent selected from the group consisting of -O-, -S- and $>NR^{20}$, each R^{20} is independently selected from the group consisting of alkyl[, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, substituted alkyl, substituted alkenyl, substituted alkynyl, optionally substituted aryl, optionally substituted heteroaryl and optionally substituted heterocyclic,] as defined in A

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herein, alkenyl as defined in B herein, alkynyl as defined in C herein, cycloalkyl as defined in D herein, cycloalkenyl as defined in E herein, substituted alkyl as defined in F herein, substituted alkenyl as defined in G herein, substituted alkynyl as defined in H herein, substituted aryl as defined in F21 herein, substituted heteroaryl as defined in F22 herein, and substituted heterocyclic as defined in F23 herein, each R^{21} is independently selected from the group consisting of alkylene, substituted alkylene, alkenylene and substituted alkenylene with the proviso that when Z^a is -O- or -S-, any unsaturation in the alkenylene and substituted alkenylene does not involve participation of the -O- or -S-, *q* is an integer of from 1 to 3;

X^a is oxo or thioxo; X^b is -OH or -SH;

A-B is selected from a group of alkylene, alkenylene, substituted alkylene, substituted alkenylene and -N=CH-; R^c is selected from the group consisting of alkyl [, substituted alkyl, alkenyl, substituted alkenyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclic, cycloalkyl, and substituted cycloalkyl;] as defined in A herein, substituted alkyl as defined in F herein, alkenyl as defined in B herein, substituted alkenyl as defined in G herein, substituted aryl as defined in F21 herein, substituted heteroaryl as defined in F22 herein, substituted heterocyclic as defined in F23 herein, cycloalkyl as defined in D herein, and substituted cycloalkyl as defined in I herein;

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p is an integer equal to 0 or 1 such that when *p* is zero, the ring defined by Q is unsaturated at the carbon atom of ring attachment to NH and when *p* is one, the ring is saturated at the carbon atom of ring attachment to NH;

[and] or pharmaceutically acceptable salts thereof;

with the following provisos:

AAA. when R^1 is 3,5-difluorophenyl, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then the group defined by Q, does not form a 2-(S)-indanol group;

BBB. when R^1 is phenyl, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then the group defined by Q, does not form a trans-2-hydroxy-cyclohex-1-yl group;

CCC. when R^1 is cyclopropyl, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then the group defined by Q, does not form an N-methylcaprolactam group;

DDD. when R^1 is 4-chlorobenzoyl-CH_2-, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then the group defined by Q, does not form an 2,3-dihydro-1-methyl-5-phenyl-1H-1,4-benzodiazepin-2-one;

EEE. when R^1 is 2-phenylphenyl, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then the group defined by Q, does not form an 7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one;

FFF. when R^1 is $CH_3OC(O)CH_2-$, R^2 is $-CH_3$, Z′ is $-CH_2-$, and *p* is 1, then the group defined by Q, does not form an 2,3-dihydro-1-(*t*-butylC(O)CH_2-)-5-(2-pyridyl)-1H-1,4-benzodiazepin-2-one;

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GGG. when R^1 is 4-ethoxyphenyl, 2,4,6-trimethylphenyl, 4-phenylphenyl, $CH_3OC(O)CH_2$-, 4-$HOCH_2$-phenyl, 2,4,6-trifluorophenyl, 2-trifluoromethyl-4-fluorophenyl, or CH_3S-, R^2 is $-CH_3$, Z′ is $-CH_2$-, and *p* is 1, then the group defined by Q, does not form a 2,3-dihydro-1-(N,N-diethylamino-CH_2CH_2-)-5-(2-pyridyl)-1H-1,4-benzodiazepin-2-one;

HHH. when R^1 is 2,6-difluorophenyl, R^2 is $-CH_3$, Z′ is -CH(OH)-, and *p* is 1, then the group defined by Q, does not form a 2,3-dihydro-1-(N,N-diethylamino-CH_2CH_2-)-5-(2-pyridyl)-1H-1,4-benzodiazepin-2-one;

III. when the ring defined by Q forms a cycloalkyl, then it does not form a cycloalkyl of from 3 to 8 carbon atoms optionally substituted with 1 to 3 alkyl groups.